100mu=36051 bp

FIG.1

DU145 Control

DU145/AdpHyde

← pHyde

← GAPDH

FIG. 2A

DU145 Control

DU145/AdRSVpHyde

←pHyde

FIG. 2B

FIG.3A

FIG.3B

FIG.4

C
DU145/AdRSVpHyde

F
LNCaP/AdRSVpHyde
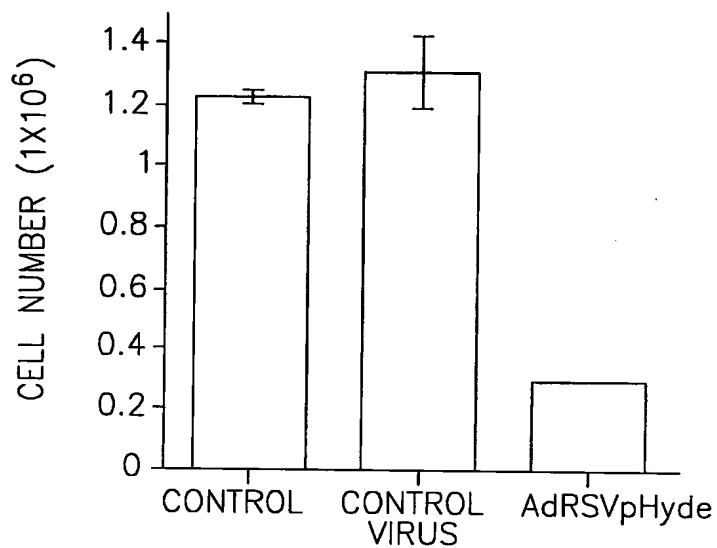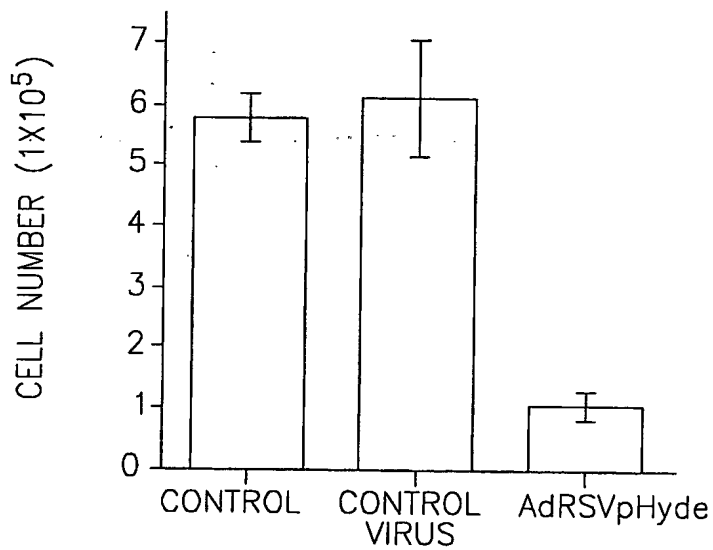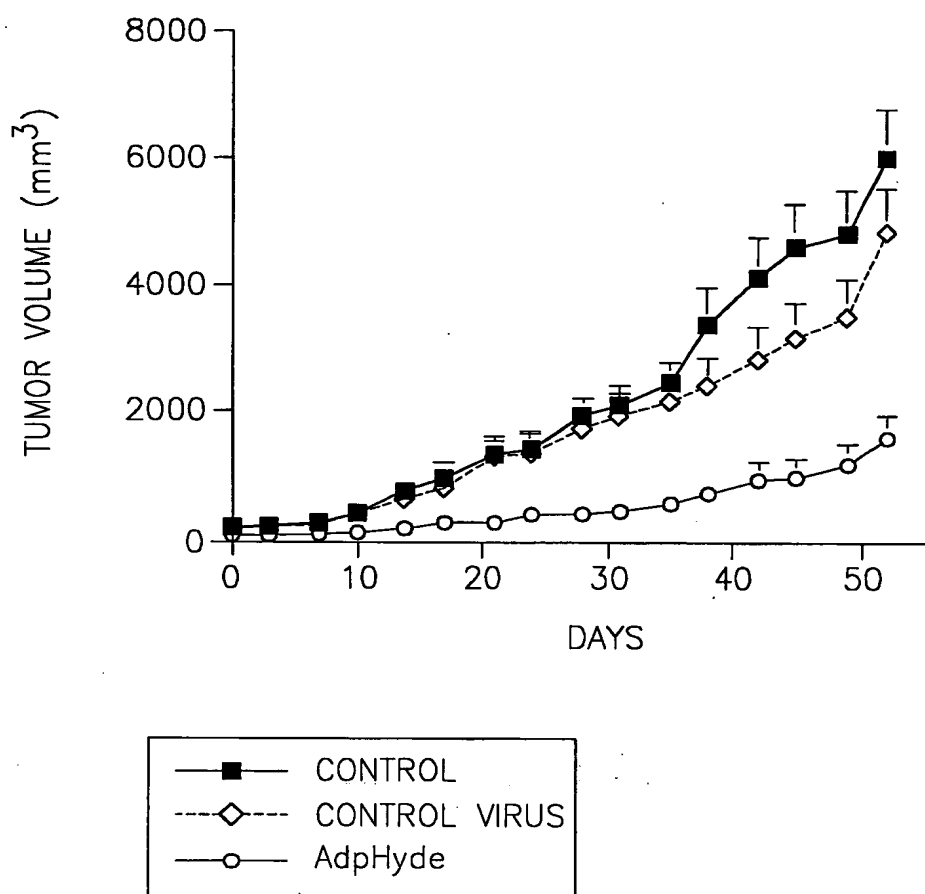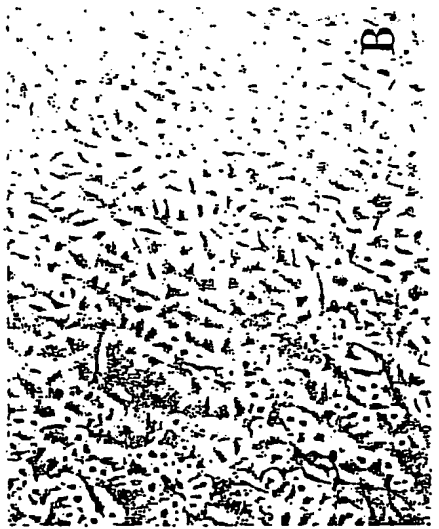
B
DU145/Control Virus

E
LNCaP/Control Virus

DU145 Control
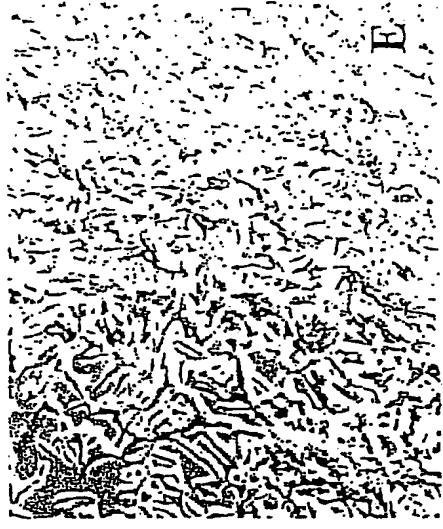
LNCaP Control
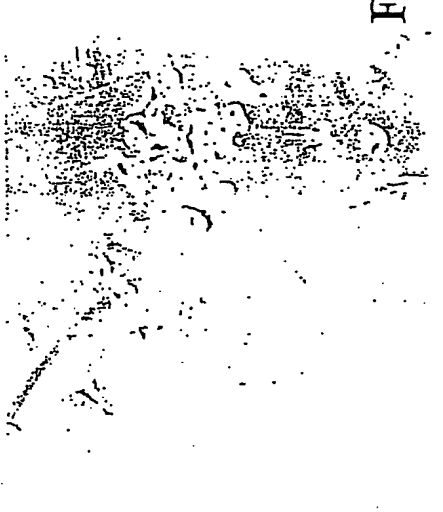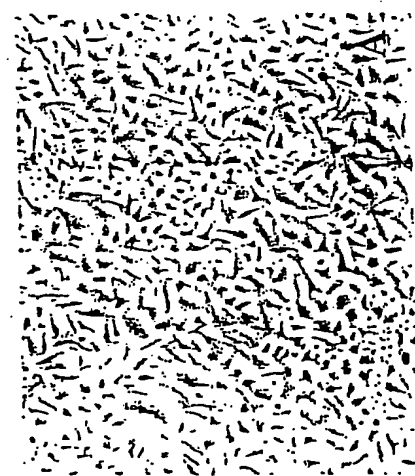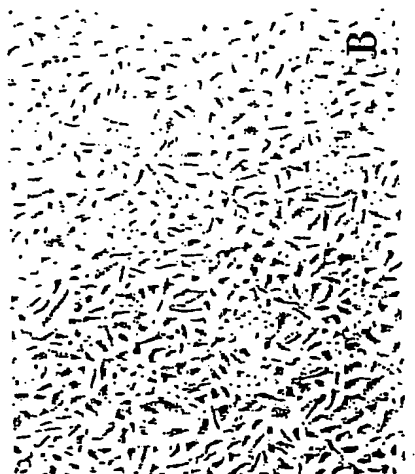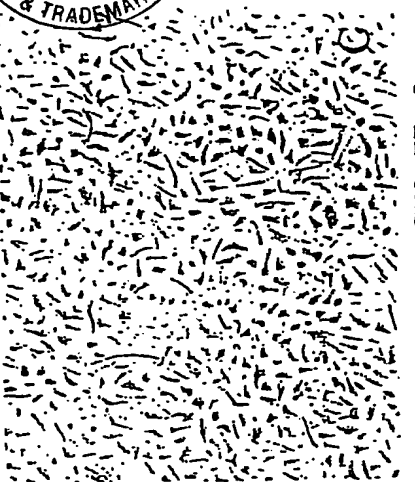
FIG. 5

PC-3/AdRSVpHyde

TSU/AdRSVpHyde

PPC-1/AdRSVpHyde

PC-3/Contro Virus

TSU/Contro Virus

PPC-1/Contro Virus

PC-3/Control

TSU/Control

PPC-1/Control

FIG. 6

FIG. 7

DU145 control

DU145/AdpHyde

← pHYDE

← GAPDH

← p53

FIG.8

100 bp marker

LNCaP Control

LNCaP/AdRSVpHyde
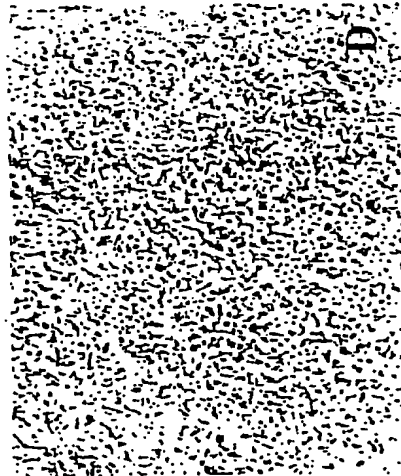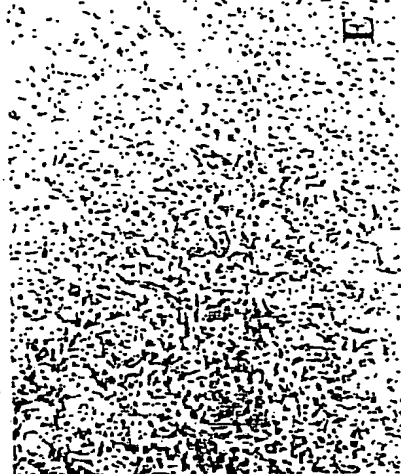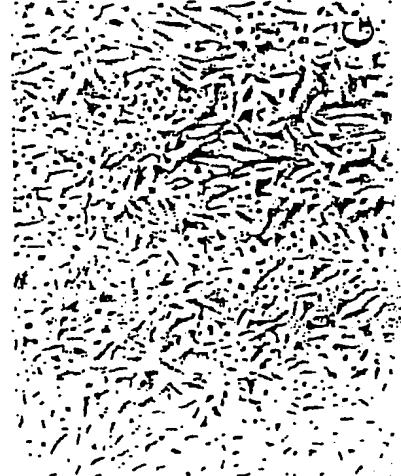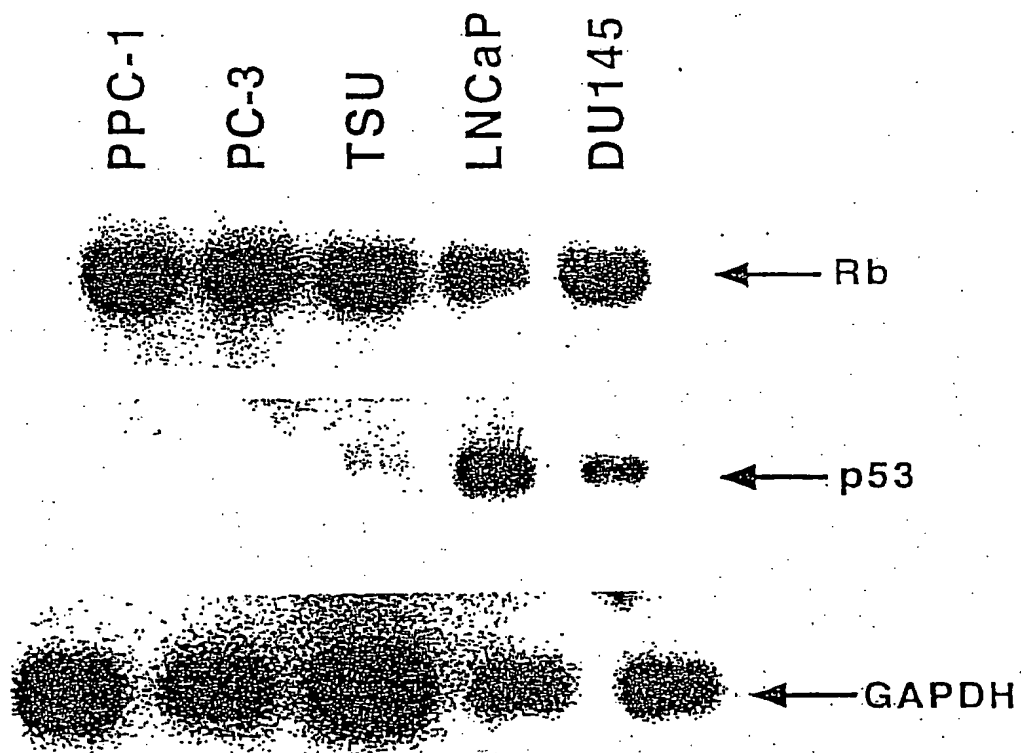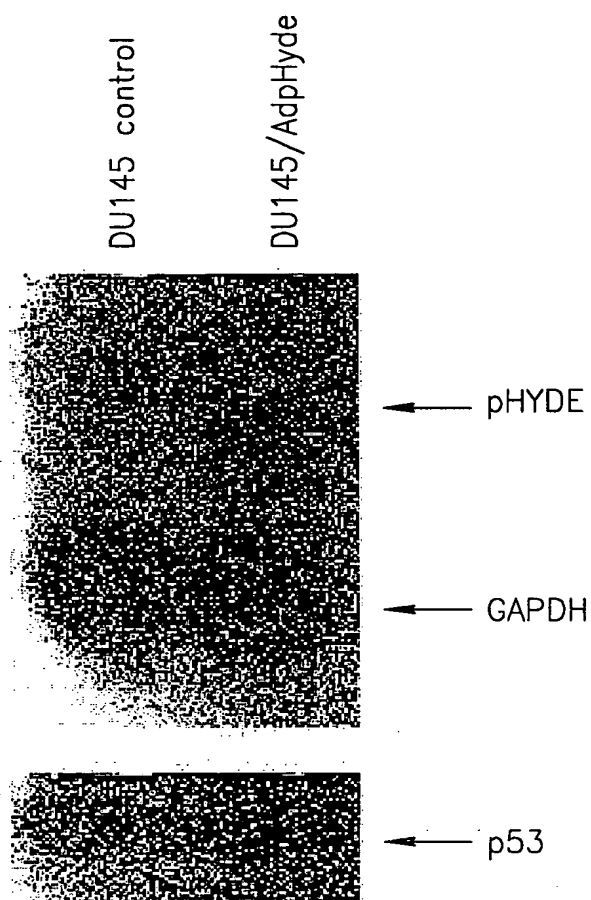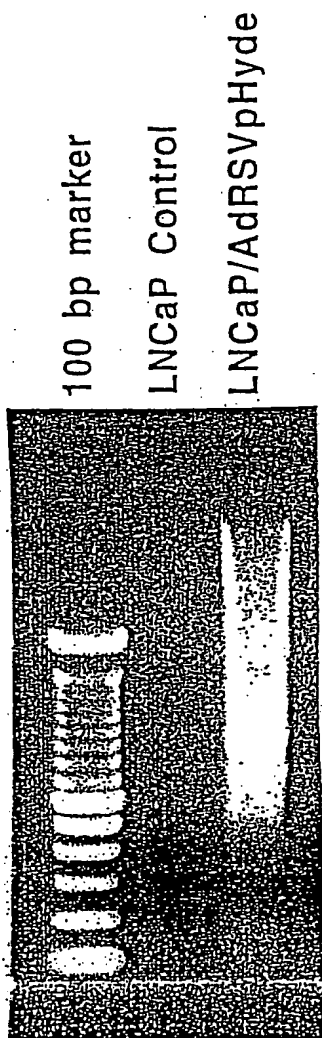
FIG. 9

SECUENCE OF REGION A OF AdRSVpHyde:

```
GCGGCCGCCATCATCAATAATATACCTTATTTTGGATTGAAG
CCAATATGATAATGAGGGGGTGGAGTTTGTGACGTGGC
GCGGGGCGTGGGAACGGGGCGGGTGACGTAGTAGTGTGGC
GGAAGTGTGATGTTGCAAGTGTGGCGGAACACATGTAAGC
GACGGATGTGGCAAAAGTGACGTTTTTGGTGTGCGCCGGTG
TACACAGGAAGTGACAATTTTCGCGCGGTTTTAGGCGGA
TGTTGTAGTAAATTTGGGCGTAACCGAGTAAGATTTGGCCAT
TTTCGCGGGAAAACTGAATAAGAGGAAGTGAAATCTGA
ATAATTTTGTGTTACTCATAGCGCGTAATATTTGTCTAGGGCC
GCGGGGACTTTGACCGTTTACGTGGAGACTCGCCCAG
GGCGCGCCCCGATGTACGGGCCAGATATACGCGTATCTGAG
GGGACTAGGGTGTGTTTAGGCGAAAAGCGGGGCTTCGGT
TGTACGCGGTTAGGAGTCCCCTCAGGATATAGTAGTTTCGCT
TTTGCATAGGGAGGGGGAAATGTAGTCTTATGCAATAC
TCTTGTAGTCTTGCAACATGGTAACGATGAGTTAGCAACATG
CCTTACAAGGAGAGAAAAAGCACCGTGCATGCCGATTG
GTGGAAGTAAGGTGGTACGATCGTGCCTTATTAGGAAGGCTA
ACAGACGGGTCTGACATGGATTGGACGAACCACTGAATT
CCGCATTGCAGAGATATTGTATTTAAGTGCCTAGCTCGATAC
AATAAACGCCATTTGACCATTCACCACATTGGTGTGCA
CCTCCGGCCCTGGCCACTCTCTTCCGCATCGCTGTCTGCGGG
GGCCAGCTGTTGGGCTCGCGGTTGAGGACAAACTCTTC
GCGGTCTTTCCAGTACTCTTGGATCGGAAACCCGTCGGCCCTC
CGAACGGTACTCCGCCGCCGAGGGACCTGAGCGAGTCC
GCATCGACCGGATCGGAAAACCTCTCGAGAAAGGCGTGTAA
CCAGTCACAGTCGCTCTAGAACTAGTGGATCCCCCGGGC
TGCAGGAATTCGATAATTCGGCACGAGGCTGCCGAGGCACT
GTGATGTCCGGGGAGATGGACAAACCGCTCATCAGTCGC
CGCTTGGTGGACAGTGATGGCAGTCTGGCTGAGGTCCCCAA
GGAGGCTCCCAAAGTGGGCATCCTGGGCAGCGGGGATTT
TGCCCGGTCCCTGGCCACACGCCTGGTGGGCTCTGGCTTCT
TTGTGGTGGTGGGAAGCCGTAACCCCAAACGCACTGCCG
GCCTCTTCCCCTCCTTAGCCCAAGTGACTTTCCAGGAGGAGG
CCGTGAGCTCTCCAGAGGTCATCTTTGTGGCCGTGTTC
CGGGAGCACTACTCCTCACTGTGCAGTCTTGCTGACCAGTTG
GCTGGCAAGATCCTAGTGGATGTAAGCAACCCCACGGA
GAAGGAGCGTCTTCAGCACCGCCAGTCGAACGCCGAGTACC
TGGCCTCCCTCTTCCCTGCCTGCACTGTGGTCAAGGCCT
TCAACGTCATCTCTGCATGGGCCCTACAGGCTGGCCCAAGG
GATGGGAACAGGCAGGTGCTCATCTGCGGTGACCAGCTG
GAAGCCAAGCACACCGTCTCAGAGATGGCGCGCGCCATGG
GTTTCACCCCACTGGACATGGGATCCCTGGCCTCAGCGAG
GGAGGTAGAGGCCATACCCCTGCGCCTCCTTCCATCCTGGA
AGGTGCCCACCCTCCTGGCCCTGGGGCTAAGCACACAAA
```

FIG.10A

```
GCTATGCCTACAACTTCATCCGGGACGTTCTACAGCCGTACA
TCCGGAAAGATGAGAACAAGTTCTACAAGATGCCCCTG
TCTGTGGTCAACACCACGaTACCCTGTGTGGCTTACGTGCTG
CTGTCCCTGGTTTACCTGCCTGGTGTGCTGGCAGCTGC
CCTTCAGCTGAGGAGGGGGACCAAGTACCAGCGCTTCCCAG
ACTGGCTGGACCATTGGCTGCAGCACCGCAAGCAGATCG
GGCTACTCAGCTTTTTTTCGCCATGCTGCACGCTCTCTACAG
CTTCTGCCTGCCGCTGCGCCGCTCCCACCGCTATGAT
CTGGTCAACCTGGCTGTGAAGCAGGTCCTGGCCAACAAGAG
CCGCCTCTGGGTTGAGGAAGAAGTCTGGCGGATGGAGAT
ATACCTGTCCCTGGGTGTGCTGGCTCTGGGCATGCTGTCACT
GCTGGCGGTTACCTCGATCCCTTCCATTGCAAACTCAC
TCAACTGGAAGGAGTTCAGCTTTGTGCAGTCCACGCTGGGC
TTCGTGGCCCTGATGCTGAGCACAATGCACACCCTCACC
TACGCGCTGGACCCGTGCTTTTGAGGAAAACCACTACAAGTTC
TACCTGCCACCCACATTCACGCTCACGCTGCTCCTGCC
CTGTGTCATCATCCTGGCCAAGGGCCTCTTCCTCCTGCCCTG
CCTCAGCCACAGACTCACCAAGATCCGCAGGGGCTGGG
AGAGGGATGGTGCCGTCAAGTTCATGCTGCCCGCTGGCCAC
ACACAGGGGGAGAAAACAAGCCACGTGTGAGGCCCTGGA
AATGGAGACAGGCACAGCTTGTGGGGGCCCTGGGCTGGGT
TCGGGTCTCTTTTCTGGGATGGTATATGCGTGGGTGGCCG
AGGTCTGAATTTCTGGGATGCAGGTGTATGCCGAGATACTCA
GAATGGCGTACCACACATGCGATAAGAGCTCACATATA
TTTCATATATAATAGGATTTTCTATTATTCTTAGTTAAAAAAAA
ATAGTGGGTCCTTATATTTCAACTTATGCAGGGTCC
CTATATTTCAACTTGAGCATTTCAGAGCAAATGCCACACATTA
AACAGCAGATCCCACCCTTGTGGTAGCTGCAGAGACA
GACAGAAACTTCTGGTtATGAGAGAGACTGTATTTTGTTGGAT
TCTACCTTTAATCCCCGTTCTCTACGTTcCCCTGTTA
GCCACATCTTAACGTTGGTGCAGAGCTGGGACAAGAGCTGG
CTCTGGTGCAGCCTCCCCCATCCCAGGGCTAGGAAACAA
GCCTCTGATGAACAGAGGGACCAGGTCTGGACCCTCCTGCT
CCCGCTTCCCTGGGCTCGAGTGGGGAGGCTCAGCGGGAT
CCCCCGCAATCTGTGCAGGAGTTTTCACAGGTCTGTCCTTTC
TTCCGGGAGCGGTCTGAAGCGGCCCCATCTGATCCTAG
CTGAGCCGAGATTGTTCCCCACTCCCTGAAAGTCCAGAGTCA
CCGTGGAGCCTGCAAATTGCTCCTTCTGCGAAGGTGTG
AAGTCACCGTCTCACCAGAGCCATTAACGAACCTGATCTTCA
GAAGAAGCATAATTGTTTCCCCTCCATTAAGTTGGTGG
TGACCCTCTTTAAACCACTGTGCCTTCTCGCCTTTCCCATCAC
TAATTTGGGCATCTCCATGGAGTGGACTCTTGTCGGG
GCAGTTCAGGGGGGAGGGAAGCATTAGAGATTGCGGAGAA
TAACCATCGAAGCCTCCCTTGGATGTTCCCAGGCGTGCCT
```

FIG.10B

TCATTAAATTGGTCCCTAATGAGAATGACAGGGGACCCCTGT
TGCCTGTaTGCAGAGAACCAGCCTTCTGAGCACCCAGG
AAACACAGTGGCCCCACGCCCTTCAGGGGGGTCCCACGTCC
CCTTTCCCATGCTTTTGCCTCCCTCCCTCCCGGTTACAA
TCAACCATAAAAGTCTGCAAATATTGTTTTTTGAATTATCAAG
CTTATCGATACCGTCGAAACTTGTTTATTGCAGCTTA
TAATGGTTACAAATAAAGCAATAGCATCACAAATTTCACAAAT
AAAGCATTTTTTTCACTGCATTCTAGTTGTGGTTTGT
CCAAACTCATCAATGTATCTTATCATGTCTGGATCCGACCTCG
G

SECUENCE OF REGION B OF AdRSVpHyde:

ATCTGGAAGGTGCTGAGGTACGATGAGACCCGCACCAGGTG
CAGACCCTGCGAGTGTGGCGGTAAACATATTAGGAACCA
GCCTGTGATGCTGGATGTGACCGAGGAGCTGAGGCCCGATC
ACTTGGTGCTGGCCTGCACCCGCGCTGAGTTTGGCTCTA
GCGATGAAGATACAGATTGAGGTACTGAAATGTGTGGGCGT
GGCTTAAGGGTGGGAAAGAATATATAAGGTGGGGGTCTT
ATGTAGTTTTGTATCTGTTTTGCAGCAGCCGCCGCCGCCATG
AGCACCAACTCGTTTGATGGAAGCATTGTGAGCTCATA
TTTGACAACGCGCATGCCCCCATGGGCCGGGGTGCGTCAGA
ATGTGATGGGCTCCAGCATTGATGGTCGCCCCGTCCTGC
CCGCAAACTCTACTACCTTGACCTACGAGACCGTGTCTGGAA
CGCCGTTGGAGACTGCAGCCTCCGCCGCCGCTTCAGCC
GCTGCAGCCACCGCCCGCGGGATTGTGACTGACTTTGCTTTC
CTGACCCGCTTGCAAGCAGTGCAGCTTCCCGTTCATC
CGCCCGCGATGACAAGTTGACGGCTCTTTTGGCACAATTGG
ATTCTTTGACCCGGGAACTTAATGTCGTTTCTCAGCAGC
TGTTGGATCTGCGCCAGCAGGTTTCTGCCCTGAAGGCTTCCT
CCCCTCCCAATGCGGTTTAAAACATAAATAAAAAACCA
GACTCTGTTTGGATTTGGATCAAGCAAGTGTCTTGCTGTCTTT
ATTTAGTGGGTTTTGCGCGCGCGGTAGGCCCGGGACCA
GCGGTCTCGGTCGTTGAGGGTCCTGTGTATTTTTTCCAGGAC
GTGGTAAAGGTGACTCTGGATGTTCAGATACATGGGCA
TAAGCCCGTCTCTGGGGTGGAGGTAGCACCACTGCAGAGCT
TCATGCTGCGGGGTGGTGTTGTAGATGATCCAGTCGTAG
CAGGAGCGCTGGGCGTGGTGCCTAAAAATGTCTTTCAGTAG
CAAGCTTATTGCCAGGGGCAGGCCCTTGGTGTAAGTGTT
TACAAAGCGGTTAAGCTGGGATGGGGGCATACGTGGGGATA
TGAGATGCATCTTGGACTGTATTTTTAGGTTGGCTATGT
TCCCAGCCATATCCCTCCGGGGATTCATGTTGTGCAGAACCA
CCAGCACAGTGTATCCGGTGCACTTGGGAAATTTGTCA
TGTAGCTTAGAAGGAAATGCGTGGAAGAACTTGGAGACGCC
CTTGTGACCTCCAAGATTTTCCATGCATTCGTCCATAAT
GATGGCAATGGGCCCACGGGCGGCGGCCTGGGCGAAGATA
TTTCTGGGATCACTAACGGCATAGTTGTGTTCCAGGATGA

FIG.10C

GATCGTCATAGGCCATTTTTACAAAGCGCGGGCGGAGGGTG
CCAGACTGCGGTATAATGGTTCCATCCGGCCCAGGGGCG
TAGTTACCCTCACAGATTTGCATTTCCCACGCTTTGAGTTCAG
ATGGGGGGATCATGTCTACCTGCGGGGCGATGAAGAA
AACGGTTTCCGGGGTAGGGGAGATCAGCTGGGAAGAAAGC
AGGTTCCTGAGCAGCTGCGACTTACCGCAGCCGGTGGGCC
GCTAAATCACACCTATTACCGGGTGCAACTGGTAGTTAAGAG
AGCTGCAGCTGCCGTCATCCCTGAGCAGGGGGGCCACT
TCGTTAAGCATGTCCCTGACTCGCATGTTTTCCCTGACCAAAT
CCGCCAGAAGGCGCTCGCCGCCCAGCGATAGCAGTTC
TTGCAAGGAAGCAAAGTTTTTCAACGGTTTGAGACCGTCCGC
CGTAGGCATGCTTTTGAGCGTTTGACCAAGCAGTTCCA
GGCGGTCCCACAGCTCGGTCACCTGCTCTACGGCATCTCGA
TCCAGCATATCTCCTCGTTTCGCGGGTTGGGGCGGCTTT
CGCTGTACGGCAGTAGTCGGTGCTCGTCCAGACGGGCCAGG
GTCATGTCTTTCCACGGGCGCAGGGTCCTCGTCAGCGTA
GTCTGGGTCACGGTGAAGGGGTGCGCTCCGGGCTGCGCGC
TGGCCAGGGTGCGCTTGAGGCTGGTCCTGCTGGTGCTGAA
GCGCTGCCGGTCTTCGCCCTGCGCGTCGGCCAGGTAGCATT
TGACCATGGTGTCATAGTCCAGCCCCTCCGCGGCGTGGC
CCTTGGCGCGCAGCTTGCCCTTGGAGGAGGCGCCGCACGA
GGGGCAGTGCAGACTTTTGAGGGCGTAGAGCTTGGGCGCG
AGAAATACCGATTCCGGGGAGTAGGCATCCGCGCCGACGGC
CCCGCAGACGGTCTCGCATTCCACGAGCCAGGTGAGCTC
TGGCCGTTCGGGGTCAAAAACCAGGTTTCCCCCATGCTTTTT
GATGCGTTTCTTACCTCTGGTTTCCATGAGCCGGTGTC
CACGCTCGGTGACGAAAAGGCTGTCCGTGTCCCCGTATACA
GACTTGAGAGGCCTGTCCTAGAGCGGTGTTCCGCGGTCC
TCCTCGTATAGAAACTCGGACCACTCTGAGACAAAGGCTCGC
GTCCAGGCCAGCACGAAGGAGGCTAAGTGGGAGGGGTA
GCGGTCGTTGTCCACTAGGGGGTCCACTCGCTCCAGGGTGT
GAAGACACATGTCGCCCTCTTCGGCATCAAGGAAGGTGA
TTGGTTTGTAGGTGTAGGCCACGTGACCGGGTGTTCCTGAA
GGGGGGCTATAAAAGGGGGTGGGGGCGCGTTCGTCCTAC
CTCTCTTCCGCATCGCTGTCTGCGAGGGCCAGCTGTTGGGG
TGAGTACTCCCTCTGAAAAGCGGGCATGACTTCTGCGCT
AAGATTGTCAGTTTCCAAAAACGAGGAGGATTTGATATTCAC
CTGGCCCGCGTTGATGCCTTTGAGGGTGGCCGCATCCA
TCTGGTCAGAAAAGACAATCTTTTTGTTGTCAAGCTTGGTGG
CAAACGACCCGTAGAGGGCGTTGGACAGCAACTTGGCG
ATGGAGCGCAGGGTTTGGTTTTTGTCGCGATCGGCGCGCTC
CTTGGCCGCGATGTTTAGCTGCACGTATTCGCGCGCAAC
GCACCGCCATTCGGGAAAGACGGTGGTGCGCTCGTCGGGC
ACCAGGTGCACGCGCCAACCGCGGTTGTGCAGGGTGACAA
GGTCAACGCTGGTGGCTACCTCTCGCGCTAGGCGCTCGTTG
GTCCAGCAGAGGCGGCCGCCCTTGCGCGAGCAGAATGGC

FIG.10D

```
GGTAGGGGGTCTAGCTGCGTCTCGTCCGGGGGGTCTGCGTC
CACGGTAAAGACCCCGGGCAGCAGGCGCGCGTCGAAGTA
GTCTATCTTGCATCCTTGCAAGTCTAGCGCCTGCTGCCATGC
GCGGGCGGCAAGCGCGCGCTCGTATGGGTTGAGTGGGG
GACCCCATGGCATGGGGTGGGTGAGCGCGGAGGCGTACAT
GCCGCAAATGTCGTAAACGTAGAGGGGCTCTCTGAGTATT
CCAAGATATGTAGGGTAGCATCTTCCACCGCGGATGCTGGC
GCGCACGTAATCGTATAGTTCGTGCGAGGGAGCGAGGAG
GTCGGGACCGAGGTTGCTACGGGCGGGCTGCTCTGCTCGG
AAGACTATCTGCCTGAAGATGGCATGTGAGTTAAATGATA
TGGTTGGACGCTGGAAGACGTTGAAGCTGGCGTCTGTGAGA
CCTACCGCGTCACGCACGAAGGAGGCGTAGGAGTCGCGC
AGCTTCTTGACCAGCTCGGCGGTGACCTGCACGTCTAGGGC
GCAGTAGTCCAGGGTTTCCTTGATGATGTCATACTTATC
CTGTCCCTTTTTTTTCCACAGCTCGCGGTTGAGGACAAACTCT
TCGCGGTCTTTCCAGTACTCTTGGATCGGAAACCCGT
CGGCCTCCGAACGGTAAGAGCCTAGCATGTAGAACTGGTTG
AGGGCCTGGTAGGCGCAGCATCCCTTTTCTACGGGTAGC
GCGTATGCCTGCGCGGCCTTCCGGAGCGAGGTGTGGGTGA
GCGCAAAGGTGTCCCTGACCATGACTTTGAGGTACTGGTA
TTTGAAGTCAGTGTCGTCGCATCCGCCCTGCTCCCAGAGCAA
AAAGTCCGTGCGCTTTTTGGAACGCGGATTTGGCAGGG
CGAAGGTGACATCGTTGAAGAGTATCTTTCCCGCGCGAGGC
ATAAAGTTGCGTGTGATGCGGAAGGGTCCCGGCACCTCG
GAACGGTTGTTAATTACCTGGGCGGCGAGCACGATCTCGTT
AAAGCCGTTGATGTTGTGGCCCACAATGTAAAGTTCCAA
GAAGCGCGGGATGCCCTTGATGGAAGGCAATTTTTTAAGTTC
CTCGTAGGTGAGCTCTTCAGGGGAGCTGAGCCCGTGCT
CTGAAAGGGCCCAGTCTGCAAGATGAGGTGTGGAAGCGAC
GAATGAGCTCCACAGGTCACGGGCCATTAGCATTTGCAGG
TGGTCGCGAAAGGTCCTAAACTGGCGACCTATGGCCATTTTT
TCTGGGGTGATGCAGTAGAAGGTAAGCGGGTCTTGTTC
CCAGCGGTCCCATCCAAGGTTCGCGGCTAGGTCTCGCGCGG
CAGTCACTAGAGGCTCATCTCCGCCGAACTTCATGACCA
GCATGAAGGGCACGAGCTGCTTCCCAAAGGCCCCCATCCAA
GTATAGGTCTCTACATCGTAGGTGACAAAGAGACGCTCG
GTGCGAGGATGCGAGCCGATCGGGAAGAACTGGATCTCCC
GCCACCAATTGGAGGAGTGGCTATTGATGTGGTGAAAGTA
GAAGTCCCTGCGACGGGCCGAACACTCGTGCTGGCTTTTGT
AAAAACGTGCGCAGTACTGGCAGCGGTGCACGGGCTGTA
CATCCTGCACGAGGTTGACCTGACGACCGCGCACAAGGAAG
CAGAGTGGGAATTTGAGCCCCTCGCCTGGCGGGTTTGGC
TGGTGGTCTTCTACTTCGGCTGCTTGACCTTGACCGTCTGGC
TGCTCGAGGGGAGTTACGGTGGATCGGACCACCACGCC
GCGCGAGCCCAAAGTCCAGATGTCCGCGCGCGGCGGTCGG
AGCTTGATGACAACATCGCGCAGATGGGAGCTGTCCATGG
```

FIG.10E

```
TCTGGAGCTCCCGCGGCGTCAGGTCAGGCGGGAGCTCCTGC
AGGTTTACCTCGCATAGACGGGTCAGGGCGCGGGCTAGA
TCCAGGTGATACCTAATTTCCAGGGGCTGGTTGGTGGCGGC
GTCGATGGCTTGCAAGAGGCCGCATCCCCGCGGCGCGAC
TACGGTACCGCGCGGCGGGCGGTGGGCCGCGGGGGTGTCC
TTGGATGATGCATCTAAAAGCGGTGACGCGGGCGAGCCCC
CGGAGGTAGGGGGGGCTCCGGACCCGCCGGGAGAGGGGG
CAGGGGCACGTCGGCGCCGCGCGCGGGCAGGAGCTGGTGC
T
GCGCGCGTAGGTTGCTGGCGAACGCGACGACGCGGCGGTT
GATCTCCTGAATCTGGCGCCTCTGCGTGAAGACGACGGGC
CCGGTGAGCTTGAGCCTGAAAGAGAGTTCGACAGAATCAAT
TTCGGTGTCGTTGACGGCGGCCTGGCGCAAAATCTCCTG
CACGTCTCCTGAGTTGTCTTGATAGGCGATCTCGGCCATGAA
CTGCTCGATCTCTTCCTCCTGGAGATCTCCGCGTCCGG
CTCGCTCCACGGTGGCGGCGAGGTCGTTGGAAATGCGGGC
CATGAGCTGCGAGAAGGCGTTGAGGCCTCCCTCGTTCCAG
ACGCGGCTGTAGACCACGCCCCCTTCGGCATCGCGGGCGCG
CATGACCACCTGCGCGAGATTGAGCTCCACGTGCCGGGC
GAAGACGGCGTAGTTTCGCAGGCGCTGAAAGAGGTAGTTGA
GGGTGGTTGGCGGTGTGTTCTGCCACGAAGAAGTACATAA
CCCAGCGTCGCAACGTGGATTCGTTGATATCCCCCAAGGCCT
CAAGGCGCTCCATGGCCTCGAGGAAGTCCAAGGCGAAG
TTGAAAAACTGGGAGTTGCGCGCCGACACGGTTAACTCCTC
CTCCAGAAGACGGATGAGCTCGGCGACAGTGTCGCGCAC
CTCGCGCTCAAAGGCTACAGGGGCCTCTTCTTCTTCTTCAAT
CTCCTCTTCCATAAGGGCCTCCCCTTCTTCTTCTTCTG
GCGGCGGTGGGGGAGGGGGGACACGGCGGCGACGACGGC
GCACCGGGAGGCGGTCGACAAAGCGCTTCGATCATCTCCCCG
CGGCGACGGCGCATGGTCTCGGTGACGGCGCGGCCGTTCT
CGCGGGGGCGCAGTTGGAAGACGCCGCCCGTCATGTCCCG
GTTATGGGTTGGCGGGGGGCTGCCATGCGGCAGGGATACG
GCGCTAACGATGCATCTCAACAATTGTTGTGTAGGTACTC
CGCCGCCGAGGGACCTGAGCGAGTCCGCATCGACCGGATC
GGAAAACCTCTCGAGAAAGGCGTCTAACCAGTCACAGTCG
CAAGGTAGGCTGAGCACCGTGGCGGGCGGCAGCGGGCGGC
GGTCGGGGTTGTTTCTGGCGGAGGTGCTGCTGATGATGTA
ATTAAAGTAGGCGGTCTTGAGACGGCGGATGGTCGACAGAA
GCACCATGTCCTTGGGTCCGGCCTGCTGAATGCGCAGGC
GGTCGGCCATGCCCCAGGCTTCGTTTTGACATCGGCGCAGG
TCTTTGTAGTAGTCTTGCATGAGCCTTTCTACCGGCACT
TCTTCTTCTCCTTCCTCTTGTCCTGCATCTCTTGCATCTATCGC
TGCGGCGGCGGCGGAGTTTGGCCGTAGGTGGCGCCC
TCTTCCTCCCATGCGTGTGACCCCGAAGCCCCTCATCGGCTG
AAGCAGGGCTAGGCTGGCGACAACGCGCTCGGCTAATA
TGGCCTGCTGCACCTGCGTGAGGGTAGACTGGAAGTCATCC
```

FIG.10F

```
ATGTCCACAAAGCGGTGGTATGCGCCCGTGTTGATGGTG
TAAGTGCAGTTGGCCATAACGGACCAGTTAACGGTCTGGTG
ACCCGGCTGCGAGAGCTCGGTGTACCTGAGACGCGAGTA
AGCCCTCGAGTCAAATACGTAGTCGTTGCAAGTCCGCACCA
GGTACTGGTATCCCACCAAAAAGTGCGGCGGCGGCTGGC
GGTAGAGGGGCCAGCGTAGGGTGGCCGGGGCTCCGGGGG
CGAGATCTTCCAACATAAGGCGATGATAATCCGTAGATGTAC
CTGGACATCCAGGTGATGCCCGGCGGCGGTGGTGGAGGCGC
GCGGAAAGTCGCGGACGCGGTTCCAGATGTTGCGCAGCGG
CAAAAAGTGCTCCATGGTCGGGACGCTCTGGCCGGTCAGGC
GCGCGCAATCGTTGACGCTCTACCGTGCAAAAGGAGAGC
CTGTAAGCGGGCACTCTTCCGTGGTCTGGTGGATAAATTCGC
AAGGGTATCATGGCGGACGACCGGGGTTCGAGCCCCGT
ATCCGGCCGTCCGCCGTGATCCATGCGGTTACCGCCCGCGT
GTCGAACCCAGGTGTGCGACGTCAGACAACGGGGGAGTG
CTCCTTTTGGCTTCCTTCCAGGCGCGGCGGCTGCTGCGCTAG
CTTTTTTGGCCACTGGCCGCGCGCAGCGTAAGCGGTTA
GGCTGGAAAGCGAAAGCATTCCGTGGCTCGCTCCCTGTAGC
CGGAGGGTTATTTTCCAAGGGTTGAGTCGCGGGACCCCC
GGTTCGAGTCTCGGACCGGCCGGACTGCGGCGAACGGGGG
TTTGCCTCCCCGTCATGCAAGACCCCGCTTGCAAATTCCT
CCGGAAACAGGGACGAGCCCCTTTTTTGCTTTTCCCAGATGC
ATCCGGTGCTGCGGCAGATGCGCCCCCCTCCTCAGCAG
CGGCAAGAGCAAGAGCAGCGGCAGACATGCAGGGCACCCT
CCCCTCCTCCTACCGCGTCAGGAGGGGCGACATCCGCGGT
TGACGCGGCAGCAGATGGTGATTACGAACCCCCGCGGCGCC
GGGCCCGGCACTACCTGGACTTGGAGGAGGGCGAGGGCC
TGGCGCGGCTAGGAGCGCCCTCTCCTGAGCGGTACCCAAGG
GTGCAGCTGAAGCGTGATACGCGTGAGGCGTACGTGCCG
AGGCAGAACCTGTTTCGCGACCGCGAGGGAGAGGAGCCCG
AGGAGATGCGGGATCGAAAGTTCCACGCAGGGCGCGAGCT
GCGGCATGGCCTGAATCGCGAGCGGTTGCTGCGCGAGGAT
GACTTTGAGCCCGACGCGCGAACCGGGATTAGTCCCGCGC
GCGCACACGTGGCGGCCGCCGACCTGGTAACCGCATACGA
GCAGACGGTGAACCAGGAGATTAACTTTCAAAAAAGCTTT
AACAACCACGTGCGTACGCTTGTGGCGCGCGAGGAGGTGG
CTATAGGACTGATGCATCTGTGGGACTTTGATTGCGCGCT
GGAGCAAAACCCAAATAGCAAGCCGCTCATGGCGCAGCTGT
TCCTTATAGTGCAGCACAGCAGGGACAACGAGGCATTCA
GGGATGCGCTGCTAAACATAGTAGAGCCCGAGGGCCGCTG
GCTGCTCGATTTGATAAACATCCTGCAGAGCATAGTGGTG
CAGGAGCGCAGCTTGAGCCTGGCTGACAAGGTGGCCGCCAT
CAACTATTCCATGCTTAGCCTGGGCAAGTTTTACGCCCG
CAAGATATACCATACCCCTTACGTTCCCATAGACAAGGAGGT
AAAGATCGAGGGGTTCTACATGCGCATGGCGCTGAAGG
TGCTTACCTTGAGCGACGACCTGGGCGTTTATCGCAACGAG
```

FIG.10G

CGCATCCACAAGGCCGTGAGCGTGAGCCGGCGGCGCGAG
CTCAGCGACCGCGAGCTGATGCACAGCCTGCAAAGGGCCCT
GGCTGGCACGGGCAGCGGCGATAGAGAGGCCGAGTCCTA
CTTTGACGCGGGCGCTGACCTGCGCTGGGCCCCAAGCCGAC
GCGCCCTGGAGGCAGCTGGGGCCGGACCTGGGCTGGCGG
TGGCACCCGCGCGCGCTGGCAACGTCGGCGGCGTGGAGGA
ATATGACGAGGACGATGAGTACGAGCCAGAGGACGGCGAG
TACTAAGCGGTGATGTTTCTGATCAGATGATGCAAGACGCAA
CGGACCCGGCGGTGCGGGCGGCGCTGCAGAGCCAGCCG
TCCGGCCTTAACTCCACGGACGACTGGCGCCAGGTCATGGA
CCGCATCATGTCGCTGACTGCGCGCAATCCTGACGCGTT
CCGGCAGCAGCCGCAGGCCAACCGGCTCTCCGCAATTCTGG
AAGCGGTGGTCCCGGCGCGCGCAAACCCCACGCACGAGA
AGGTGCTGGCGATCGTAAACGCGCTGGCCGAAAACAGGGC
CATCCGGCCCGACGAGGCCGGCCTGGTCTACGACGCGCTG
CTTCAGCGCGTGGCTCGTTACAACAGCGGCAACGTGCAGAC
CAACCTGGACCGGGCTGGTGGGGGATGTGCGCGAGGCCGT
GGCGCAGCGTGAGCGCGCGCAGCAGCAGGGCAACCTGGGC
TCCATGGTTGCACTAAACGCCTTCCTGAGTACACAGCCCG
CCAACGTGCCGCGGGGACAGGAGGACTACACCAACTTTGTG
AGCGCACTGCGGCTAATGGTGACTGAGACACCGCAAAGT
GAGGTGTACCAGTCTGGGCCAGACTATTTTTTCCAGACCAGT
AGACAAGGCCTGCAGACCGTAAACCTGAGCCAGGCTTT
CAAAAACTTGCAGGGGCTGTGGGGGGTGCGGGCTCCCACA
GGCGACCGCGCGACCGTGTCTAGCTTGCTGACGCCCAACT
CGCGCCTGTTGCTGCTGCTAATAGCGCCCTTCACGGACAGT
GGCAGCGTGTCCCGGGACACATACCTAGGTCACTTGCTG
ACACTGTACCGCGAGGCCATAGGTCAGGCGCATGTGGACGA
GCATACTTTCCAGGCGCTTACAAGTGTCAGCCGCGCGCT
GGGGCAGGAGGACACGGGCAGCCTGGAGGCAACCCTAAAC
TACCTGCTGACCAACCGGCGGCAGAAGATCCCCTCGTTGC
ACAGTTTAAACAGCGAGGAGGAGCGCATTTTGCGCTACGTG
CAGCAGAGCGTGAGCCTTAACCTGATGCGCGACGGGGTA
ACGCCCAGCGTGGCGCTGGACATGACCGCGCGCAACATGG
AACCGGGCATGTATGCCTCAAACCGGCCGTTTATCAACCG
CCTAATGGACTACTTGCATCGCGCGGCCGCCGTGAACCCCG
AGTATTTCACCAATGCCATCTTGAACCCGCACTGGCTAC
CGCCCCTGGTTTCTACACCGGGGGATTCGAGGTGCCCGAG
GGTAACGATGGATTCCTCTGGGACGACATAGACGACAGC
GTGTTTTCCCCGCAACCGCAGACCCTGCTAGAGTTGCAACAG
CGCGAGCAGGCAGAGGCGGCGCTGCGAAAGGAAAGCTT
CCGCAGGCCAAGCAGCTTGTCCGATCTAGGCGCTGCGGCCC
CGCGGTCAGATGCTAGTAGCCCATTTCCAAGCTTGATAG
GGTCTCTTACCAGCACTCGCACCACCCGCCCGCGCCTGCTG
GGCGAGGAGGAGTACCTAAACAACTCGCTGCTGCAGCCG
CAGCGCGAAAAAAACCTGCCTCCGGCATTTCCCAACAACGG

FIG.10H

```
GATAGAGAGCCTAGTGGACAAGATGAGTAGATGGAAGAC
GTACGCGCAGGAGCACAGGGACGTGCCAGGCCCGCGCCCG
CCCACCCGTCGTCAAAGGCACGACCGTCAGCGGGGTCTGG
TGTGGGAGGACGATGACTCGGCAGACGACAGCAGCGTCCT
GGATTTGGGAGGGAGTGGCAACCCGTTTGCGCACCTTCGC
CCCAGGCTGGGGAGAATGTTTTAAAAAAAAAAAAAGCATGAT
GCAAAATAAAAAACTCACCAAGGCCATGGCACCGAGCGT
TGGTTTTCTTGTATTCCCCTTAGTATGCGGCGCGCGGCGATG
TATGAGGAAGGTCCTCCTCCCTCCTACGAGAGTGTGGT
GAGCGCGGCGCCAGTGGCGGCGGCGCTGGGTTCTCCCTTC
GATGCTCCCCTGGACCCGCCGTTTGTGCCTCCGCGGTACC
TGCGGCCTACCGGGGGGAGAAACAGCATCCGTTACTCTGAG
TTGGCACCCCTATTCGACACCACCGTGTGTACCTGGTG
GACAACAAGTCAACGGATGTGGCATCCCTGAACTACCAGAA
CGACCACAGCAACTTTCTGACCACGGTCATTCAAAACAA
TGACTACAGCCCGGGGGAGGCAAGCACACAGACCATCAATC
TTGACGACCGGTCGCACTGGGGCGGCGACCTGAAAACCA
TCCTGCATACCAACATGCCAAATGTGAACGAGTTCATGTTTA
CCAATAAGTTTAAGGCGCGGGTGATGGTGTCGCGCTTG
CCTACTAAGGACAATCAGGTGGAGCTGAAATACGAGTGGGT
GGAGTTCACGCTGCCCGAGGGCAACTACTCCGAGACCAT
GACCATAGACCTTATGAACAACGCGATCGTGGAGCACTACTT
GAAAGTGGGCAGACAGAACGGGGTTCTGGAAAGCGACA
TCGGGGTAAAGTTTGACACCCGCAACTTCAGACTGGGGTTT
GACCCCGTCACTGGTCTTGTCATGCCTGGGGTATATACA
AACGAAGCCTTCCATCCAGACATCATTTTGCTGCCAGGATGC
GGGGTGGACTTCACCCACAGCCGCCTGAGCAACTTGTT
GGGCATCCGCAAGCGGCAACCCTTCCAGGAGGGCTTTAGGA
TCACCTACGATGATCTGGAGGGTGGTAACATTCCCGCAC
TGTTGGATGTGGACGCCTACCAGGCGAGCTTGAAAGATGAC
ACCGAACAGGGCGGGGGTGGCGCAGGCGGCAGCAACAGC
AGTGGCAGCGGCGCGGAAGAGAACTCCAACGCGGCAGCCG
CGGCAATGCAGCCGGTGGAGGACATGAACGATCATGCCAT
TCGCGGCGACACCTTTGCCACACGGGCTGAGGAGAAGCGC
GCTGAGGCCGAAGCAGCGGCCGAAGCTGCCGCCCCGCTG
CGCAACCCGAGGTCGAGAAGCCTCAGAAGAAACCGGTGATC
AAACCCCTGACAGAGGACAGCAAGAAACGCAGTTACAAC
CTAATAAGCAATGACAGCACCTTCACCCAGTACCGCAGCTGG
TACCTTGCATACAACTACGGCGACCCTCAGACCGGAAT
CCGCTCATGGACCCTGCTTTGCACTCCTGACGTAACCTGCGG
CTCGGAGCAGGTCTACTGGTCGTTGCCAGACATGATGC
AAGACCCCGTGACCTTCCGCTCCACGCGCCAGATCAGCAAC
TTTCCGGTGGTGGGCGCCGAGCTGTTGCCCGTGCACTCC
AAGAGCTTCTACAACGACCAGGCCGTCTACTCCCAACTCATC
CGCCAGTTTACCTCTCTGACCCACGTGTTCAATCGCTT
TCCCGAGAACCAGATTTTGGCGCGCCCGCCAGCCCCCACCA
```

FIG.10I

```
TCACCACCGTCAGTGAAAACGTTCCTGCTCTCACAGATC
ACGGGACGCTACCGCTGCGCAACAGCATCGGAGGAGTCCA
GCGAGTGACCATTACTGACGCCAGACGCCGCACCTGCCCC
TACGTTTACAAGGCCCTGGGCATAGTCTCGCCGCGCGTCCTA
TCGAGCCGCACTTTTTGAGCAAGCATGTCCATCCTTAT
ATCGCCCAGCAATAACACAGGCTGGGGCCTGCGCTTCCCAA
GCAAGATGTTTGGCGGGGCCAAGAAGCGCTCCGACCAAC
ACCCAGTGCGCGTGCGCGGGCACTACCGCGCGCCCTGGGG
CGCGCACAAACGCGGCCGCACTGGGCGCACCACCGTCGAT
GACGCCATCGACGCGGTGGTGGAGGAGGCGCGCAACTACA
CGCCCACGCCGCCACCAGTGTCCACAGTGGACGCGGCCAT
TCAGACCGTGGTGCGCGGAGCCCGGCGCTATGCTAAAATGA
AGAGACGGCGGAGGCGCGTAGCACGTCGCCACCGCCGCC
GACCCGGCACTGCCGCCCAACGCGCGGCGGCGGCCCTGCT
TAACCGCGCACGTCGCACCGGCCGACGGGCGGCCATGCGG
GCCGCTGCAAGGCTGGCCGCGGGTATTGTCACTGTGCCCCC
CAGGTCCAGGCGACGAGCGGCCGCCGCAGCAGCCGCGGC
CATTAGTGCTATGACTCAGGGTCGCAGGGGCAACGTGTATT
GGGTGCGCGACTCGGTTAGCGGCCTGCGCGTGCCCGTGC
GCACCCGCCCCCGCGCAACTAGATTGCAAGAAAAAACTAC
TTAGACTCGTACTGTTGTATGTATCCAGCGGCGGCGGCG
CGCAACGAAGCTATGTCCAAGCGCAAAATCAAAGAAGAGAT
GCTCCAGGTCATCGCGCCGGAGATCTATGGCCCCCCGAA
GAAGGAAGAGCAGGATTACAAGCCCCGAAAGCTAAAGCGG
GTCAAAAAGAAAAAGAAAGATGATGATGATGAACTTGACG
ACGAGGTGGAACTGCTGCACGCTACCGCGCCCAGGCGACG
GGTACAGTGGAAAGGTCGACGCGTAAAACGTGTTTTGCGA
CCCGGCACCACCGTAGTCTTTACGCCCGGTGAGCGCTCCAC
CCGCACCTACAAGCGCGTGTATGATGAGGTGTACGGCGA
CGAGGACCTGCTTGAGCAGGCCAACGAGCGCCTCGGGGAG
TTTGCCTACGGAAAGCGGCATAAGGACATGCTGGCGTTGC
CGCTGGACGAGGGCAACCCAACACCTAGCCTAAAGCCCGTA
ACACTGCAGCAGGTGCTGCCCGCGCTTGCACCGTCCGAA
GAAAAGCGCGGCCTAAAGCGCGAGTCTGTTGACTTGGCACC
CACCGTGCAGCTGATGGTACCCAAGCGCCAGCGACTGGA
AGATGTCTTGGAAAAAATGACCGTGGAACCTGGGCTGGAGC
CCGAGGTCCGCGTGCGGCCAATCAAGCAGGTGGCGCCGG
GACTGGGCGTGCAGACCGTGGACGTTCAGATACCCACTACC
AGTAGCACCAGTATTGCCACCGCCACAGAGGGCATGGAG
ACACAAACGTCCCCGGTTGCCTCAGCGGTGGCGGATGCCGC
GGTGCAGGCGGTCGCTCCGGCCGCGTCCAAGACCTCTAC
GGAGGTGCAAACGGACCCGTGGATGTTTCGCGTTTCAGCCC
CCCGGCGCCCGCGCGGTTCGAGGAAGTACGGCGCCGCCA
GCGCGCTACTGCCCGAATATGCCCTACATCCTTCCATTGCGC
CTACCCCCGGCTATCGTGGCTACACCTACCGCCCCAGA
AGACGAGCAACTACCCGACGCCGAACCACCACTGGAACCCG
```

FIG.10J

```
CCGCCGCCGTCGCCGTCGCCAGCCCGTGCTGGCCCCGAT
TTCCGTGCGCAGGGTGGCTCGCGAAGGAGGCAGGACCCTG
GTGCTGCCAACAGCGCGCTACCACCCCAGCATCGTTTAAA
AGCCGGTCTTTGTGGTTCTTGCAGATATGGCCCTCACCTGCC
GCCTCCGTTTCCCGGTGCCGGGATTCCGAGGAAGAATG
CACCGTAGGAGGGGCATGGCCGGCCACGGCCTGACGGGCG
GCATGCGTCGTGCGCACCACCGGCGGCGGCGCGCGTCGCA
CCGTCGCATGCGCGGCGGTATCCTGCCCCTCCTTATTCCACT
GATCGCCGCGGCGATTGGCGCCGTGCCCGGAATTGCAT
CCGTGGCCTTGCAGGCGCAGAGACACTGATTAAAAACAAGT
TGCATGTGGGAAAAATCAAAATAAAAAGTCTGGACTCTCA
CGCTCGCTTGGTCCTGTAACTATTTTGTAGAATGGAAGACAT
CAACTTTGCGTCTCTGGCCCCGCGACACGGCTCGCGCC
CGTTCATGGGAAACTGGCAAGATATCGGCACCAGCAATATG
AGCGGTGGCGCCTTCAGCTGGGGCTCGCTGTGGAGCGGC
ATTAAAAATTTCGGTTCCACCGTTAAGAACTATGGCAGCAAG
GCCTGGAACAGCAGCACAGGCCAGATGCTGAGGGATAA
GTTGAAAGAGCAAAATTTCCAACAAAGGTGGTAGATGGCC
TGGCCTCTGGCATTAGCGGGGTGGTGGACCTGGCCAACC
AGGCAGTGCAAAATAAGATTAACAGTAAGCTTGATCCCCGCC
CTCCCGTAGAGGAGCCTCCACCGGCCGTGGAGACAGTG
TCTCCAGCGGGGCGTGGCGAAAAGCGTCCGCGCCCCGACA
GGGAAGAAACTCTGGTGACGCAAATAGACGAGCCTCCCTC
GTACGAGGAGGCACTAAAGCAAGGCCTGCCCACCACCCGTC
CCATCGCGCCCATGGCTACCGGAGTGCTGGGCCAGCACA
CACCCGTAACGCTGGACCTGCCTCCCCCCGCCGACACCCAG
CAGAAACCTGTGCTGCCAGGCCCGACCGCCGTTGTTGTA
ACCCGTCCTAGCCGCGCGTCCCTGCGCCGCGCCGCCAGCGG
TCCGCGATCGTTGCGGCCCGTAGCCAGTGGCAACTGGCA
AAGCACACTGAACAGCATCGTGGGTCTGGGGGTGCAATCCC
TGAAGCGCCGACGATGCTTCTGAATAGCTAACGTGTCGT
ATGTGTGTCATGTATGCGTCCATGTCGCCGCCAGAGGAGCT
GCTGAGCCGCCGCGCGCCCGCTTTCCAAGATGGCTACCC
CTTCGATGATGCCGCAGTGGTCTTACATGCACATCTCGGGCC
AGGACGCCTCGGAGTACCTGAGCCCCGGGCTGGTGCAG
TTTGCCCGCGCCACCGAGACGTACTTCAGCCTGAATAACAAG
TTTAGAAACCCCACGGTGGCGCCTACGCACGACGTGAC
CACAGACCGGTCCCAGCGTTTGACGCTGCGGTTCATCCCTGT
GGACCGTGAGGATACTGCGTACTCGTACAAGGCGCGGT
TCACCCTAGCTGTGGGTGATAACCGTGTGCTGGACATGGCTT
CCACGTACTTTGACATCCGCGGCGTGCTGGACAGGGGC
CCTACTTTTAAGCCCTACTCTGGCACTGCCTACAACGCCCTG
GCTCCCAAGGGTGCCCCAAATCCTTGCGAATGGGATGA
AGCTGCTACTGCTCTTGAAATAAACCTAGAAGAAGAGGACG
ATGACAACGAAGACGAAGTAGACGAGCAAGCTGAGCAGC
AAAAAACTCACGTATTTGGGCAGGCGCCTTATTCTGGTATAA
```

FIG.10K

```
ATATTACAAAGGAGGGTATTCAAATAGGTGTCGAAGGT
CAAACACCTAAATATGCCGATAAAACATTTCAACCTGAACCT
CAAATAGGAGAATCTCAGTGGTACGAAACTGAAATTAA
TCATGCAGCTGGGAGAGTCCTTAAAAAGACTACCCCAATGAA
ACCATGTTACGGTTCATATGCAAAACCCACAAATGAAA
ATGGAGGGCAAGGCATTCTTGTAAAGCAACAAAATGGAAAG
CTAGCCCGTCAAGTGGAAATGCAATTTTTCTCAACTACT
GAGGCGACCGCAGGCAATGGTGATAACTTGACTCCTAAAGT
GGTATTGTACAGTGAAGATGTAGATATAGAAACCCCAGA
CACTCATATTTCTTACATGCCCACTATTAAGGAAGGTAACTCA
CGAGAACTAATGGGCCAACAATCTATGCCCAACAGGC
CTAATTACATTGCTTTTAGGGACAATTTTATTGGTCTAATGTA
TTACAACAGCACGGGTAATATGGGTGTTCTGGCGGGC
CAAGCATCGCAGTTGAATGCTGTTGTAGATTTGCAAGACAGA
AACACAGAGCTTTCATACCAGCTTTTGCTTGATTCCAT
TGGTGATAGAACCAGGTACTTTTCTATGTGGAATCAGGCTGT
TGACAGCTATGATCCAGATGTTAGAATTATTGAAAATC
ATGGAACTGAAGATGAACTTCCAAATTACTGCTTTCCACTGG
GAGGTGTATTAATACAGAGACTCTTACCAAGGTAAAA
CCTAAAACAGGTCAGGAAAATGGATGGGAAAAAGATGCTAC
AGAATTTTCAGATAAAAATGAAATAAGAGTTGGAAATAA
TTTTGCCATGGAAATCAATCTAAATGCCAACCTGTGGAGAAA
TTTCCTGTACTCCAACATACGCGTGTATTTGCCCGACA
AGCTAAAGTACAGTCCTTCCAACGTAAAAATTTCTGATAACC
CAAACACCTACGACTACATGAACAAGCGAGTGGTGGCT
CCCGGGTTAGTGGACTGCTACATTAACCTTGGAGCACGCTG
GTCCCTTGACTATATGGACAACGTCAACCCATTTAACCA
CCACCGCAATGCTGGCCTGCGCTACCGCTCAATGTTGCTGG
GCAATGGTCGCTATGTGCCCTTCCACATCCAGGTGCCTC
AGAAGTTCTTTGCCATTAAAAACCTCCTTCTCCTGCCGGGCT
CATACACCTACGAGTGGAACTTCAGGAAGGATGTTAAC
ATGGTTCTGCAGAGCTCCCTAGGAAATGACCTAAGGGTTGA
CGGAGCCAGCATTAAGTTTGATAGCATTTGCCTTTACGC
CACCTTCTTCCCCATGGCCCACAACACCGCCTCCACGCTTGA
GGCCATGCTTAGAAACGACACCAACGACCAGTCCTTTA
ACGACTATCTCTCCGCCGCCAACATGCTCTACCCTATACCCG
CCAACGCTACCAACGTGCCCATATCCATCCCCTCCCGC
AACTGGGCGGCTTTCCGCGGCTGGGCCTTCACGCGCCTTAA
GACTAAGGAAACCCCATCACTGGGCTCGGGCTACGACCC
TTATTACACCTACTCTGGCTCTATACCCTACCTAGATGGAACC
TTTTACCTCAACCACACCTTTAAGAAGGTGGCCATTA
CCTTTGACTCTTCTGTCAGCTGGCCTGGCAATGACCGCCTGC
TTACCCCCAACGAGTTTGAAATTAAGCGCTCAGTTGAC
GGGGAGGGTTACAACGTTGCCCAGTGTAACATGACCAAAGA
CTGGTTCCTGGTACAAATGCTAGCTAACTACAACATTGG
CTACCAGGGCTTCTATATCCCAGAGAGCTACAAGGACCGCAT
```

FIG.10L

```
GTACTCCTTCTTTAGAAACTTCCAGCCCATGAGCCGTC
AGGTGGTGGATGATACTAAATACAAGGGACTACCAACAGGTG
GGCATCCTACACCAACACAACAACTCTGGATTTGTTGGC
TACCTTGCCCCCACCATGCGCGAAGGACAGGCCTACCCTGC
TAACTTCCCCTATCCGCTTATAGGCAAGACCGCAGTTGA
CAGCATTACCCAGAAAAAGTTTCTTTGCGATCGCACCCTTTG
GCGCATCCCATTCTCCAGTAACTTTATGTCCATGGGCG
CACTCACAGACCTGGGCCAAAACCTTCTCTACGCCAACTCCG
CCCACGCGCTAGACATGACTTTTGAGGTGGATCCCATG
GACGAGCCCACCCTTCTTTATGTTTTGTTTGAAGTCTTTGACG
TGGTCCGTGTGCACCGGCCGCACCGCGGCGTCATCGA
AACCGTGTACCTGCGCACGCCCTTCTCGGCCGGCAACTCCA
CAACATAAAGAAGCAAGCAACATCAACAACAGCTGCCGC
CATGGGCTCCAGTGAGCAGGAACTGAAAGCCATTGTCAAAG
ATCTTGGTTGTGGGCCATATTTTTTGGGCACCTATGACA
AGCGCTTTCCAGGCTTTGTTTCTCCACACAAGCTCGCCTGCG
CCATAGTCAATACGGCCGGTCGCGAGACTGGGGGCGTA
CACTGGATGGCCTTTGCCTGGAACCCGCACTCAAAAACATGC
TACCTCTTTGAGCCCTTTGGCTTTTCTGACCAGCGACT
CAAGCAGGTTTACCAGTTTGAGTACGAGTCACTCCTGCGCCG
TAGCGCCATTGCTTCTTCCCCGACCGCTGTATAACGC
TGGAAAAGTCCACCCAAAGCGTACAGGGGCCCAACTCGGCC
GCCTGTGGACTATTCTGCTGCATGTTTCTCCACGCCTTT
GCCAACTGGCCCCAAACTCCCATGGATCACAACCCCACCATG
AACCTTATTACCGGGGTACCCAACTCCATGCTCAACAG
TCCCCAGGTACAGCCCACCCTGCGTCGCAACCAGGAACAGC
TCTACAGCTTCCTGGAGCGCCACTCGCCCTACTTCCGCA
GCCACAGTGCGCAGATTAGGAGCGCCACTTCTTTTTGTCACT
TGAAAAACATGTAAAAATAATGTACTAGAGACACTTTC
AATAAAGGCAAATGCTTTTATTTGTACACTCTCGGGTGATTAT
TTACCCCCACCCTTGCCGTCTGCGCCGTTTAAAAATC
AAAGGGGTTCTGCCGCGCATCGCTATGCGCCACTGGCAGGG
ACACGTTGCGATACTGGTGTTTAGTGCTCCACTTAAACT
CAGGCACAACCATCCGCGGCAGCTCGGTGAAGTTTTCACTC
CACAGGCTGCGCACCATCACCAACGCGTTTAGCAGGTCG
GGCGCCGATATCTTGAAGTCGCAGTTGGGGCCTCCGCCCTG
CGCGCGCGAGTTGCGATACACAGGGTTGCAGCACTGGAA
CACTATCAGCGCCGGGTGGTGCACGCTGGCCAGCACGCTCT
TGTCGGAGATCAGATCCGCGTCCAGGTCCTCCGCGTTGC
TCAGGGCGAACGGAGTCAACTTTGGTAGCTGCCTTCCCAAA
AAGGGCGCGTGCCCAGGCTTTGAGTTGCACTCGCACCGT
AGTGGCATCAAAAGGTGACCGTGCCCGGTCTGGGCGTTAGG
ATACAGCGCCTGCATAAAAGCCTTGATCTGCTTAAAAGC
CACCTGAGCCTTTGCGCCTTCAGAGAAGAACATGCCGCAAG
ACTTGCCGGAAAACTGATTGGCCGGACAGGCCGCGTCGT
GCACGCAGCACCTTGCGTCGGTGTTGGAGATCTGCACCACA
```

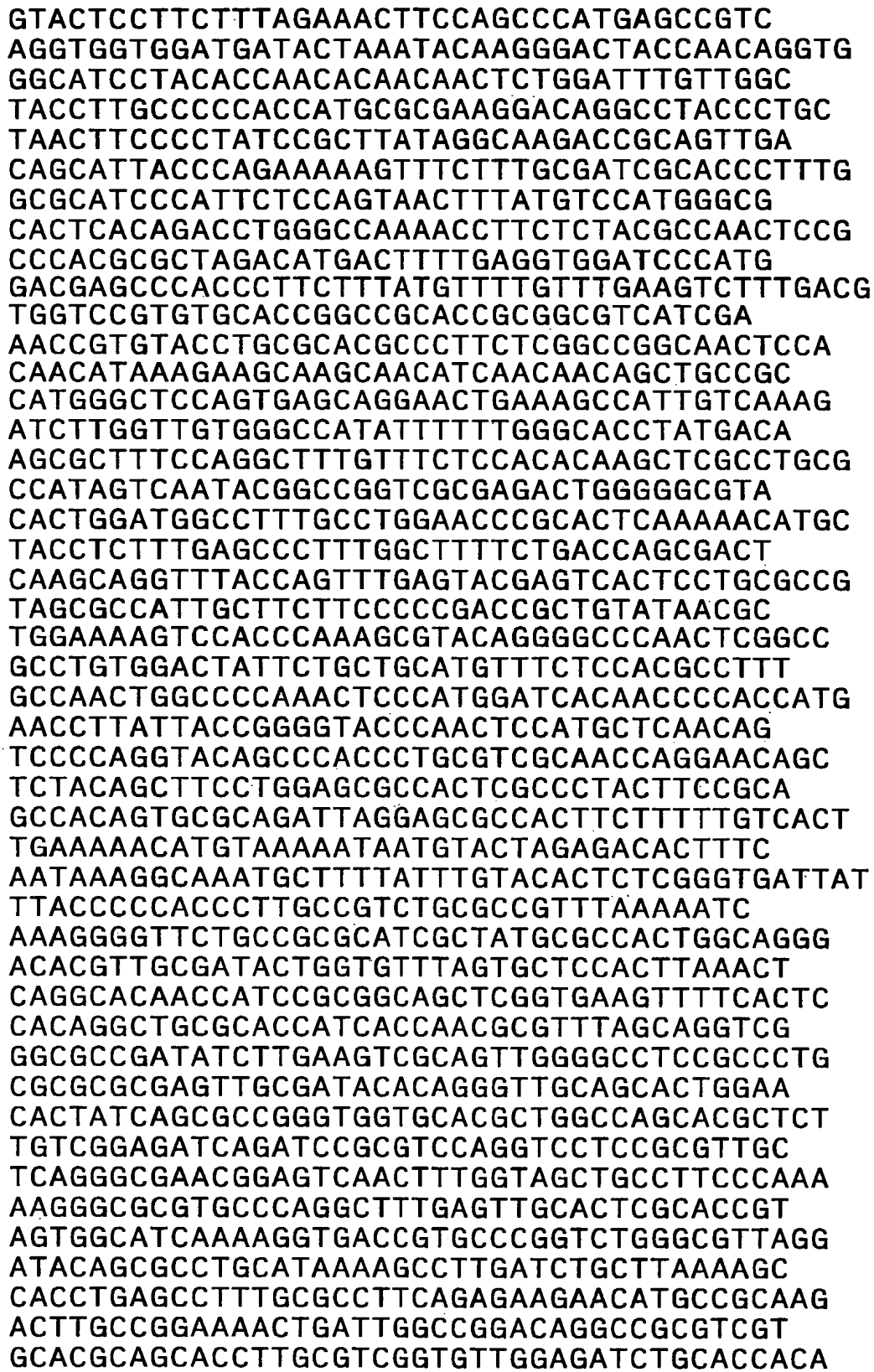FIG.10M

TTTCGGCCCCACCGGTTCTTCACGATCTTGGCCTTGCTA
GACTGCTCCTTCAGCGCGCGCTGCCCGTTTTCGCTCGTCACA
TCCATTTCAATCACGTGCTCCTTATTTATCATAATGCT
TCCGTGTAGACACTTAAGCTCGCCTTCGATCTCAGCGCAGCG
CTGCAGCCACAACGCGCAGCCCGTGGGCTCGTGATGCT
TGTAGGTCACCTCTGCAAACGACTGCAGGTACGCCTGCAGG
AATCGCCCCATCATCGTCACAAGGTCTTGTTGCTGGTG
AAGGTCAGCTGCAACCCGCGGTGCTCCTCGTTCAGCCAGGT
CTTGCATACGGCCGCCAGAGCTTCCACTTGGTCAGGCAG
TAGTTTGAAGTTCGCCTTTAGATCGTTATCCACGTGGTACTTG
TCCATCAGCGCGCGCGCAGCCTCCATGCCCTTCTCCC
ACGCAGACACGATCGGCACACTCAGCGGGTTCATCACCGTA
ATTTCACTTTCCGCTTCGCTGGGCTCTTCCTCTTCCTCT
TGCGTCCGCATACCACGCGCCACTGGGTCGTCTTCATTCAGC
CGCCGCACTGTGCGCTTACCTCCTTTGCCATGCTTGAT
TAGCACCGGTGGGTTGCTGAAACCCACCATTTGTAGCGCCA
CATCTTCTCTTTCTTCCTCGCTGTCCACGATTACCTCTG
GTGATGGCGGGCGCTCGGGCTTGGGAGAAGGGCGCTTCTTT
TTCTTCTTGGGCGCAATGGCCAAATCCGCCGCCGAGGTC
GATGGCCGCGGGCTGGGTGTGCGCGGCACCAGCGCGTCTT
GTGATGAGTCTTCCTCGTCCTCGGACTCGATACGCCGCCT
CATCCGCTTTTTTGGGGGCGCCCGGGGAGGCGGCGGCGAC
GGGGACGGGGACGACACGTCCTCCATGGTTGGGGGACGTC
GCGCCGCACCGCGTCCGCGCTCGGGGGTGGTTTCGCGCTG
CTCCTCTTCCCGACTGGCCATTTCCTTCTCCTATAGGCAG
AAAAAGATCATGGAGTCAGTCGAGAAGAAGGACAGCCTAAC
CGCCCCCTCTGAGTTCGCCACCACCGCCTCCACCGATGC
CGCCAACGCGCCTACCACCTTCCCCGTCGAGGCACCCCCGC
TTGAGGAGGAGGAAGTGATTATCGAGCAGGACCCAGGTT
TTGTTAAGCGAAGACGACGAGGACCGCTCAGTACCAACAGAG
GATAAAAAGCAAGACCAGGACAACGCAGAGGCAAACGAG
GAACAAGTCGGGCGGGGGGACGAAAGGCATGGCGACTACC
TAGATGTGGGAGACGACGTGCTGTTGAAGCATCTGCAGCG
CCAGTGCGCCATTATCTGCGACGCGTTGCAAGAGCGCAGCG
ATGCTGCCCCTCGCCATAGCGGATGTCAGCCTTGCCCTACG
AACGCCACCTATTCTCACCGCGCGTACCCCCCAAACGCCAAG
AAACGGCACATGCGAGCCCAACCCGCGCCTCAACTTC
TACCCGTATTTGCCGTGCCAGCGGTGCTTGCCACCTATCAC
ATCTTTTTCCAAAACTGCAAGATACCCCTATCCTGCCG
TGCCAACCGCAGCCGAGAGACAAGCAGCTGGCCTTGCGG
CAGGGCGCTGTCATACCTGATATCGCCTCGCTCAACGAAG
TGCCAAAAATCTTTGAGGGTCTTGGACGCGACGAGAAGCGC
GCGGCAAACGCTCTGCAACAGGAAAACAGCGAAAATGAA
AGTCACTGGAGTGTTGGTGGAACTCGAGGGTGACAACGC
GCGCCTAGCCGTACTAAAACGCAGCATCGAGGTCACCCA
CTTTGCCTACCCGGCACTTAACCTACCCCCCAAGGTCATGAG

FIG.1ON

```
CACAGTCATGAGTGAGCTGATCGTGCGCCGTGCGCAGC
CCCTGGAGAGGGATGCAAATTTGCAAGAACAAACAGAGGAG
GGCCTACCCGCAGTTGGCGACGAGCAGCTAGCGCGCTGG
CTTCAAACGCGCGAGCCTGCCGACTTGGAGGAGCGACGACGCAA
ACTAATGATGGCCGCAGTGCTCGTTACCGTGGAGCTTGA
GTGCTGCAGCGGTTCTTTGCTGACCCGGAGATGCAGCGCA
AGCTAGAGGAAACATTGCACTACACCTTTCGACAGGGCT
ACGTACGCCAGGCCTGCAAGATCTCCAACGTGGAGCTCTGC
AACCTGGTCTCCTACCTTGGAATTTTGCACGAAAACCGC
CTTGGGCAAAACGTGCTTCATTCCACGCTCAAGGGCGAGGC
GCGCCGCGACTACGTCCGCGACTGCGTTTACTTATTTCT
ATGCTACACCTGGCAGACGGCCATGGGCGTTTGGCAGT
GCTTGGAGGAGTGCAACCTTCAAGGAGCTGCAGAAACTGC
TAAAGCAAAACTTGAAGGACCTATGGACGGCCTTCAACGAG
CGCTCCGTGGCCGCGCACCTGGCGGACATCATTTTCCCC
GAACGCCTGCTTAAAACCCTGCAACAGGGTCTGCCAGACTTC
ACCAGTCAAAGCATGTTGCAGAACTTTAGGAACTTTAT
CCTAGAGCGCTCAGGAATCTTGCCCGCCACCTGCTGTGCACT
TCCTAGCGACTTTGTGCCCATTAAGTACCGCGAATGCC
CTCCGCCGCTTTGGGGCCACTGCTACCTTCTGCAGCTAGCCA
ACTACCTTGCCTACCACTCTGACATAATGGAAGACGTG
AGCGGTGACGGTCTACTGGAGTGTCACTGTCGCTGCAACCT
ATGVAVVVGVAVVGVTVVVTGGTTTGVAATTVGVAGVT
GCTTAACGAAAGTCAAATTATCGGTACCTTTGAGCTGCAGGG
TCCCTCGCCTGACGAAAAGTCCGCGGCTCCGGGGGTTCA
AACTCACTCCGGGGCTGTGGACGTCGGCTTACCTTCGCAAAT
TTGTACCTGAGGACTACCACGCCCACGAGATTAGGTTC
TACGAAGACCAATCCCGCCCGCCAAATGCGGAGCTTACCGC
CTGCGTCATTACCCAGGGCCACATTCTTGGCCAATTGCA
AGCCATCAACAAAGCCCGCCAAGAGTTTCTGCTACGAAGG
GACGGGGGGTTTACTTGGACCCCCAGTCCGGCGAGGAGC
TCAACCCAATCCCCCCGCCGCCGCAGCCCTATCAGCAGCAG
CCGCGGGCCCTTGCTTCCCAGGATGGCACCCAAAAAGAA
GCTGCAGCTGCCGCCGCCACCCACGGACGAGGAGGAATACT
GGGACAGTCAGGCAGAGGAGGTTTTGGACGAGGAGGAGG
AGGACATGATGGAAGACTGGGAGAGCCTAGACGAGGAAGC
TTCCGAGGTCGAAGAGGTGTCAGACGAAACACCGTCACCC
TCGGTCGCATTCCCCTCGCCGGCGCCCCAGAAATCGGCAAC
CGGTTCCAGCATGGCTACAACCTCCGCTCCTCAGGCGCC
GCCGGCACTGCCCGTTCGCCGACCCAACCGTAGATGGGACA
CCACTGGAACCAGGGCCGGTAAGTCCAAGCAGCCGCCGC
CGTTAGCCCAAGAGCAACAACAGCGCCAAGCTACCGCTCA
TGGCGCGGGCACAAGAACGCCATAGTTGCTTGCCTTGCAA
GACTGTGGGGGCAACATCTCCTTCGCCCGCCGCTTTCTTCTC
TACCATCACGGCGTGGCCTTCCCCCGTAACATCCTGCA
TTACTACCGTCATCTCTACAGCCCATACTGCACCGGCGGGCAG
```

FIG.100

CGGCAGCGGCAGCAACAGCAGCGGCCACACAGAAGCAA
AGGCGACCGGATAGCAAGACTCTGACAAAGCCCAAGAAATC
CACAGCGGCGGCAGCAGCAGGAGGAGGAGCGCTGCGTCT
GGCGCCCAACGAACCCGTATCGACCCGCGAGCTTAGAAACA
GGATTTTTCCCACTCTGTATGCTATATTTCAACAGAGCA
GGGGCCAAGAACAAGAGCTGAAAATAAAAAACAGGTCTCTG
CGATCCCTCACCCGCAGCTGCCTGTATCACAAAAGCGAA
GATCAGCTTCGGCGCACGCTGGAAGACGCGGAGGCTCTCTT
CAGTAAATACTGCGCGCTGACTCTTAAGGACTAGTTTCG
CGCCCTTTCTCAAATTTAAGCGCGAAAACTACGTCATCTCCA
GCGGCCACACCCGGCGCCAGCACCTGTCGTCAGCGCCA
TTATGAGCAAGGAAATTCCCACGCCCTACATGTGGAGTTACC
AGCCACAAATGGGACTTGCGGCTGGAGCTGCCCAAGAC
TACTCAACCCGAATAAACTACATGAGCGCGGGACCCCACAT
GATATCCCGGGTCAACGGAATCCGCGCCACCGAAACCG
AATTCTCTTGGAACAGGCGGCTATTACCACCACACCTCGTAA
TAACCTTAATCCCCGTAGTTGGCCCGCTGCCCTGGTGT
ACCAGGAAAGTCCCGCTCCCACCACTGTGGTACTTCCCAGA
GACGCCCAGGCCGAAGTTCAGATGACTAACTCAGGGGCG
CAGCTTGCGGGCGGCTTTCGTCACAGGGTGCGGTCGCCCGG
GCAGGGTATAACTCACCTGACAATCAGAGGGCGAGGTAT
TCAGCTCAACGACGAGTCGGTGAGCTCCTCGCTTGGTCTCC
GTCCGGACGGGACATTTCAGATCGGCGGCGCCGGCCGTC
GTTCATTCACGCCTCGTCAGGCAATCCTAACTCTGCAGACCT
CGTCCTCTGAGCCGCGCTCTGGAGGCATTGGAACTCTG
CATTTATTGAGGAGTTTGTGCATCGGTCTACTTTAACCCCT
TCTCGGGACCTCCCGGCCACTATCCGGATCAATTTAT
TCCTAACTTTGACGCGGTAAAGGACTCGGCGGACGGCTACG
ACTGAATGTTAAGTGGAGAGGCAGAGCAACTGCGCCTGA
AACACCTGGTCCACTGTCGCCGCCACAAGTGCTTTGCCCGC
GACTCCGGTGAGTTTTGCTACTTTGAATTGCCCGAGGAT
CATATCGAGGGCCCGGCGCACGGCGTCCGGCTTACCGCCCA
GGGAGAGCTTGCCCGTAGCCTGATTCGGGAGTTTACCCA
GCGCCCCTGCTAGTTGAGCGGGACAGGGGACCCTGTGTTC
TCACTGTGATTTGCAACTGTCCTAACCTTGGATTACATC
AAGATCTTTGTTGCCATCTCTGTGCTGAGTATAATAAATACAG
AAATTAAAATATACTGGGGCTCCTATCGCCATCCTGT
AAACGCCACCGTCTTCACCCGCCCAAGCAAACCAAGGCGAA
CCTTACCTGGTACTTTTAACATCTCTCCCTCTGTGATTT
ACAACAGTTTCAACCCAGACGGAGTGAGTCTACGAGAGAAC
CTCTCCGAGCTCAGCTACTCCATCAGAAAAAACACCACC
CTCTCCGAGCTCAGCTACTCCATCAGAAAAAACACCACC
CTCCTTACCTGCCGGGAACGTACGAGTGCGTCACCGGCCGC
TGCACCACACCTACCGCCTGACCGTAAACCAGACTTTTT
CCGGACAGACCTCAATAACTCTGTTTACCAGAACAGGAGGT
GAGCTTAGAAAACCCTTAGGGTATTAGGCCAAAGGCGCA

FIG.10P

GCTACTGTGGGGTTTATGAACAATTCAAGCAACTCTACGGGC
TATTCTAATTCAGGTTTCTCTAATCGGGGTTGGGGTTA
TTCTCTGTCTTGTGATTCTCTTTATTCTTATACTAACGCTTCTC
TGCCTAAGGCTCGCCGCCTGCTGTGTGCACATTTGC
ATTTATTGTCAGCTTTTTAAACGCTGGGGTCGCCACCCAAGA
TGATTAGGTACATAATCCTAGGTTTACTCACCCTTGCG
TCAGCCCACGGTACCACCCAAAAGGTGGATTTTAAGGAGCC
AGCCTGTAATGTTACATTCGCAGCTGAAGCTATGAGTG
CACCACTCTTATAAAATGCACCACAGAACATGAAAAGCTGCT

ACTTTTCCATTTTATGAAATGTGCTACATTACCATGTACATGA
GCAAACAGTATAAGTTGTGGCCCCCACAAAATTGTGT
GGAAAACACTGGCACTTTCTGCTGCACTGCTATGCTAATTAC
AGTGCTCGCTTTGGTCTGTACCCTACTCTATATTAAAT
ACAAAAGCAGGACGCAGCTTTATTGAGGAAAAGAAAATGCCTT
AATTTACTAAGTTACAAAGCTAATGTCACCACTAACTG
CTTTACTCGCTGCTTGCAAACAAATTCAAAAAGTTAGCATTA
TAATTAGAATAGGATTTAAACCCCCGGTCATTTCCT
GCTCAATACCATTCCCCTGAACAATTGACTCTATGTGGGATA
TGCTCCAGCGCTACAACCTTGAAGTCAGGCTTCCTGGA
TGTCAGCATCTGACTTTGGCCAGCACCTGTCCCGCGGATTTG
TTCCAGTCCAACTACAGCGACCCACCCTAACAGAGATG
ACCAACACAACCAACGCGGCCGCCGCTACCGGACTTACATC
TACCACAAATACACCCCAAGTTTCTGCCCTTTGTCAATAA
CTGGGATAACTTGGGCATGTGGTGGTTCTCCATAGCGCTTAT
GTTTGTATGCCTTATTATTATGTGGCTCATCTGCTGCC
TAAAGCGCAAACGCGCCCGACCACCCATCTATCGTCCCATCA
TTGTGCTACACCCAAACAATGATGGAATCCATAGATTG
GACGGACTGAAACACATGTTCTTTTCTCTTACAGTATGATTAA
ATGAGACATGATTCCTCGAGTTTTTATATTACTGACC
CTTGTTGCGCTTTTTTGTGCGTGCTCCACATTGGCTGCGGTTT
CTCACATCGAAGTAGACTGCATTCCAGCCTTCACAGT
CTATTTGCTTTACGGATTTGTCACCCTCACGCTCATCTGCAGC
CTCATCACTGTGGTCATCGCCTTTATCCAGTGCATTG
ACTGGGTCTGTGTGCGCTTTGCATATCTCAGACACCATCCCC
AGTACAGGGACAGGACTATAGCTGAGCTTCTTAGCCCT
GGACGGAATTATTACAGAGCAGCGCCTGCTAGAAAGACGCA
GGGCAGCGGCCGAGCAACAGCGCATGAATCAAGAGCTCC

TCAGAAATTGGTGGTCATGGTGGG
CATAACTCAGCACTCGGTAGAAACCGAAGGCTGCATTCACTC
ACCTTGTCAAGGACCTGAGGATCTCTGCACCCTTATTA

FIG.10Q

AGACCCTGTGCGGTCTCAAAGATCTTATTCCCTTTAACTAATA
AAAAAAAATAATAAAGCATCACTTACTTAAAATCAGT
TAGCAAATTTCTGTCCAGTTTATTCAGCAGCACCTCCTTGCCC
TCCTCCCAGCTCTGGTATTGCAGCTTCCTCCTGGCTG
CAAACTTTCTCCACAATCTAAATGGAATGTCAGTTTCCTCCTG
TTCCTGTCCATCCGCACCCACTATCTTCATGTTGTTG
CAGATGAAGCGCGCAAGACCGTCTGAAGATACCTTCAACCC
CGTGTATCCATATGACACGGAAACCGGTCCTCCAACTGT
GCCTTTTCTTACTCCTCCCTTTGTATCCCCCAATGGGTTTCAA
GAGAGTCCCCCTGGGGTACTCTCTTTGCGCCTATCCG
AACCTCTAGTTACCTCCAATGGCATGCTTGCGCTCAAAATGG
GCAACGGCCTCTCTCTGGACGAGGCCGGCAACCTTACC
TCCCAAAATGTAACCACTGTGAGCCCCACCTGTGAAAAAACC
AAGTCAAACATAAACCTGGAAATATCTGCACCCCTCAC
AGTTACCTCAGAAGCCCTAACTGTGGCTGCCGCCGCACCTCT
AATGGTCGCGGGCAACACACTCACCATGCAATCACAGG
CCCCGCTAACCGTGCACGACTCCAAACTTAGCATTGCCACCC
AAGGACCCCTCACAGTGTCAGAAGGAAAGCTAGCCCTG
CAAACATCAGGCCCCCTCACCACCACCGATAGCAGTACCCTT
ACTATCACTGCCTCACCCCCTCTAACTACTGCCACTGG
TAGCTTGGGCATTGACTTGAAAGAGCCCATTTATACACAAAA
TGGAAAACTAGGACTAAAGTACGGGGCTCCTTTGCATG
TAACAGACGACCTAAACACTTTGACCGTAGCAACTGGTCCAG
GTGTGACTATTAATAATACTTCCTTGCAAACTAAAGTT
ACTGGAGCCTTGGGTTTTGATTCACAAGGCAATATGCAACTT
AATGTAGCAGGAGGACTAAGGATTGATTCTCAAAACAG
ACGCCTTATACTTGATGTTAGTTATCCGTTTGATGCTCAAAAC
CAACTAAATCTAAGACTAGGACAGGGCCCTCTTTTTA
TAAACTCAGCCCACAACTTGGATATTAACTACAACAAAGGCC
TTTACTTGTTTACAGCTTCAAACAATTCCAAAAAGCTT
GAGGTTAACCTAAGCACTGCCAAGGGGTTGATGTTTGACGC
TACAGCCATAGCCATTAATGCAGGAGATGGGCTTGAATT
TGGTTCACCTAATGCACCAAACACAAATCCCCTCAAAACAAA
AATTGGCCATGGCCTAGAATTTGATTCAAACAAGGCTA
TGGTTCCTAAACTAGGAACTGGCCTTAGTTTTGACAGCACAG
GTGCCATTACAGTAGGAAACAAAAATAATGATAAGCTA
ACTTTGTGGACCACACCAGCTCCATCTCCTAACTGTAGACTA
AATGCAGAGAAAGATGCTAAACTCACTTTGGTCTTAAC
AAAATGTGGCAGTCAAATACTTGCTACAGTTTCAGTTTTGGC
TGTTAAAGGCAGTTTGGCTCCAATATCTGGAACAGTTC
AAAGTGCTCATCTTATTATAAGATTTGACGAAAATGGAGTGC
TACTAAACAATTCCTTCCTGGACCCAGAATCTTGGAAC
TTTAGAAATGGAGATCTTACTGAAGGCACAGCCTATACAAAC
GCTGTTGGATTTATGCCTAACCTATCAGCTTATCCAAA
ATCTCACGGTAAAACTGCCAAAAGTAACATTGTCAGTCAAGT
TTACTTAAACGGAGACAAAACTAAACCTGTAACACTAA

FIG.10R

```
CCATTACACTAAACGGTACACAGGAAACAGGAGACACAACT
CCAAGTGCATACTCTATGTCATTTTCATGGGACTGGTCT
GGCCACAACTACATTAATGAAATATTTGCCACATCCTCTTACA
CTTTTTCATACATTGCCCAAGAATAAAGAATCGTTTG
TGTTATGTTTCAACGTGTTTATTTTTCAATTGCAGAAAATTTCA
AGTCATTTTTCATTCAGTAGTATAGCCCCACCACCA
CATAGCTTATACAGATCACCGTACCTTAATCAAACTCACAGA
ACCCTAGTATTCAACCTGCCACCTCCCTCCCAACACAC
AGAGTACACAGTCCTTTCTCCCGGCTGGCCTTAAAAAGCAT
CATATCATGGGTAACAGACATATTCTTAGGTGTTATAT
TCCACACGGTTTCCTGTCGAGCCAAACGCTCATCAGTGATAT
TAATAAACTCCCCGGGCAGCTCACTTAAGTTCATGTCG
CTGTCCAGCTGCTGAGCCACAGGCTGCTGTCCAACTTGCGG
TTGCTTAACGGGCGGCGAAGGAGAAGTCCACTCCTACAT
GGGGGTAGAGTCATAATCGTGCATCAGGATAGGGCGGTGGT
GCTGCAGCAGCGGCGAATAAACTGCTGCCGCCGCCGCT
CCGTCCTGCAGGAATACAACATGGCAGTGGTCTCCTCAGCG
ATGATTCGCACCGCCCGCAGCATAAGGCGCCTTGTCCTC
CGGGCACAGCAGCGCACCCTGATCTCACTTAAATCAGCACA
GTAACTGCAGCACAGCACCACAATATTGTTCAAAATCCC
ACAGTGCAAGGCGCTGTATCCAAAGCTCATGGCGGGGACCA
CAGAACCCACGTGGCCATCATACCACAAGCGCAGGTAGA
TTAAGTGGCGACCCCTCATAAACACGCTGGACATAAACATTA
CCTCTTTTGGCATGTTGTAATTCACCACCTCCCGGTAC
CATATAAACCTCTGATTAAACATGGCGCCATCCACCACCATC
CTAAACCAGCTGGCCAAAACCTGCCCGCCGGCTATACA
CTGCAGGGAACCGGGACTGGAACAATGACAGTGGAGAGCC
CAGGACTCGTAACCATGGATCATCATGCTCGTCATGATAT
CAATGTTGGCACAACACAGGCACACGTGCATACACTTCCTCA
GGATTACAAGCTCCTCCCGCGTTAGAACCATATCCCAG
GGAACAACCCATTCCTGAATCAGCGTAAATCCCACACTGCAG
GGAAGACCTCGCACGTAACTCACGTTGTGCATTGTCAA
AGTGTTACATTCGGGCAGCAGCGGATGATCCTCCAGTATGG
TAGCGCGGGTTTCTGTCTCAAAAGGAGGTAGACGATCCC
TACTGTACGGAGTGCGCCGAGACAACCGAGATCGTGTTGGT
CGTAGTGTCATGCCAAATGGAACGCCGGACGTAGTCATA
TTTCCTGAAGCAAAACCAGGTGCGGGCGTGACAAACAGATC
TGCGTCTCCGGTCTCGCCGCTTAGATCGCTCTGTCTAGT
AGTTGTAGTATATCCACTCTCTCAAAGCATCCAGGCGCCCCCC
TGGCTTCGGGTTCTATGTAAACTCCTTCATGCGCCGCT
GCCCTGATAACATCCACCACCGCAGAATAAGCCACACCCAG
CCAACCTACACATTCGTTCTGCGAGTCACACACGGGAGG
AGCGGGAAGAGCTGGAAGAACCATGTTTTTTTTTTTATTCCA
AAAGATTATCCAAAACCTCAAAATGAAGATCTATTAAG
TGAACGCGCTCCCCTCCGGTGGCGTGGTCAAACTCTACAGC
CAAAGAACAGATAATGGCATTTGTAAGATGTTGCACAAT
```

FIG.10S

GGCTTCCAAAAGGCAAACGGCCCTCACGTCCAAGTGGACGT
AAAGGCTAAACCCTTCAGGGTGAATCTCCTCTATAAACA
TTCCAGCACCTTCAACCATGCCCAAATAATTCTCATCTCGCCA
CCTTCTCAATATATCTCTAAGCAAATCCCGAATATTA
AGTCCGGCCATTGTAAAAATCTGCTCCAGAGCGCCCTCCACC
TTCAGCCTCAAGCAGCGAATCATGATTGCAAAAATTCA
GGTTCCTCACAGACCTGTATAAGATTCAAAAGCGGAACATTA
ACAAAAATACCGCGATCCCGTAGGTCCCTTCGCAGGGC
CAGCTGAACATAATCGTGCAGGTCTGCACGGACCAGCGCGG
CCACTTCCCCGCCAGGAACCTTGACAAAAGAACCCACAC
TGATTATGACACGCATACTCGGAGCTATGCTAACCAGCGTAG
CCCCGATGTAAGCTTTGTTGCATGGGCGGCGATATAAA
ATGCAAGGTGCTGCTCAAAAAATCAGGCAAAGCCTCGCGCA
AAAAAGAAAGCACATCGTAGTCATGCTCATGCAGATAAA
GGCAGGTAAGCTCCGGAACCACCACAGCCCCCGACACCATT
TTTCTCTCAAACATGTCTGCGGGTTTCTGCATAAACACA
AAATAAAATAACAAAAAAACATTTAAACATTAGAAGCCTGTCT
TACAACAGGAAAAACAACCCTTATAAGCATAAGACGG
ACTACGGCCATGCCGGCGTGACCGTAAAAAAACTGGTCACC
GTGATTAAAAAGCACCACCGACAGCTCCTCGGTCATGTC
CGGAGTCATAATGTAAGACTCGGTAAACACATCAGGTTGATT
CATCGGTCAGTGCTAAAAAGCGACCGAAATAGCCCGGG
GGAATACATACCCGCAGGCGTAGAGACAACATTACAGCCCC
CATAGGAGGTATAACAAAATTAATAGGAGAGAAAAACAC
ATAAACACCTGAAAAACCCTCCTGCCTAGGCAAAATAGCACC
CTCCCGCTCCAGAACAACATACAGCGCTTCACAGCGGC
AGCCTAACAGTCAGCCTTACCAGTAAAAAAGAAAACCTATTA
AAAAAACACCACTCGACACGGCACCAGCTCAATCAGTC
ACAGTGTAAAAAAGGGCCAAGTGCAGAGCGAGTATATATAG
GACTAAAAAATGACGTAACGGTTAAAGTCCACAAAAAAC
ACCCAGAAAACCGCACGCGAACCTACGCCCAGAAACGAAAG
CCAAAAAACCCACAACTTCCTCAAATCGTCACTTCCGTT
TTCCCACGTTACGTAACTTCCCATTTTAAGAAAACTACAATTC
CCAACACATACAAGTTACTCCGCCCTAAAACCTACGT
CACCCGCCCCGTTCCCACGCCCCGCGCCACGTCACAAACTC
CACCCCCTCATTATCATATTGGCTTCAATCCAAAATAAG
GTATAT

FIG.10T